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ABSTRACT

This manuscript, provided in a format that lends itself to workshop presentation, contains materials for vocational and secondary educators on curriculum and classroom modifications for handicapped learners. Content is divided into seven areas. The first section discusses overall curricular modification and adaptation for handicapped students. In the next six sections, curriculum modification and adaptation in the areas of hearing impairment, vision impairment, physical impairment, emotional impairment, mental impairment, and learning disabilities are addressed. Each of the seven sections is composed of suggestions for curricular adaptation and modification, a checklist of responsibilities of the vocational educator, a checklist of responsibilities of the special educator, practice exercises, and cartoons and narratives for making overhead transparencies. A suggested workshop agenda is appended. (YLB)

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TEACHING STUDENTS WITH SPECIAL NEEDS IN SECONDARY AND VOCATIONAL PROGRAMS:

Classroom, Building, Equipment and Instructional Modifications and Adaptations

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WORKING PAPER SERIES

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PREFACE

This manuscript was prepared by the personnel of the Rural Staff Development Center at the University of Idaho which serves regular and special class teachers who work with handicapped students. The project is housed in the Special Education Department in the College of Education. The major purposes of this center are to assist school districts in 1) assessing their own staff development needs, 2) developing staff development activities that meet these needs, and 3) finding resources to meet these training needs. Materials generated as a result of needs assessments and staff development activities are being disseminated at cost of duplication and handling.

This project is partially funded by the U.S. Department of Education, Office of Special Education and Rehabilitation.

INTRODUCTION

This manuscript is presented in a format that lends itself to workshop presentation. Content is divided into seven areas. First, overall curricular modification and adaptation for handicapped students are discussed. Following this overview, curriculum modification and adaptation in the areas of Hearing Impairment, Vision Impairment, Physical Impairment, Emotional Impairment, Mental Impairment, Learning Disabilities are discussed.

Each of the seven areas is made up of suggestions for curricular adaptation and modification, a checklist of responsibilities of the vocational educator, a checklist of responsibilities of the special educator, practice exercises, and cartoons and narratives for making overhead transparencies. Forms for the practice exercises and a bibliography are also provided.

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Curricular Adaptations for Special Needs Students

Below are suggestions for adaptations of classrooms and buildings, equipment, and instructional strategies for special needs students. This is not an exhaustive list of adaptations. Those presented here are some of the more commonly used and simple to implement. Sources for additional modifications may be found in the bibliography at the end of this paper.

____ Are the tools in your classroom modified for the handicapped?

____ Are the tools in your classroom modified for easier use for the handicapped? (i.e. gigs, guides)

____ Are the tools in your classroom modified for safer use for the handicapped? (i.e. gigs, guides)

____ Is the unstructured classroom time kept to a minimum?

____ Are standard directions simple and clear? (printed, posted)

____ Do instructional plans include repetition of major information?

____ Is written material kept to a minimum? (rather than paragraphs, use pictures including the University Symbol System, words, lists, and phrases)

____ Are objectives clearly specified?

____ Are objectives broken down into simple tasks?

____ Do instructional plans provide for frequent feedback to the student? (i.e. checklists of tasks allow students to check off progress)

____ Are tests modified so that the student can demonstrate the task or orally respond as an option to pencil/paper assessment?

____ Do the instructional plans reflect practical skills rather than principles and abstract concepts?

____ Are peer interactions a considered part of the instructional plan? (i.e. tutors, models, technical assistance)

____ Is grading based on student progress rather than on standard scores?

____ Is the instructional plan designed to train for generalization across settings, tools, and/or people?

Curricular Adaptations for Special Needs Students Continued

____ Do instructional plans include attention to physical appearance and good work habits? (just as much, and more so than for the regular student)

____ Is accuracy a pre-requisite to speed in beginning phases of a skill?

____ Are entry level and exit level skills well defined so appropriate student placement in a vocational course can be made so the student can be ready for the work world?

CHECKLIST OF RESPONSIBILITIES

Below are lists of responsibilities for Vocational and Special Educators who jointly serve special needs students. These lists are provided to help in planning programs for special needs students. The responsibilities are arranged in a more or less chronological order. The lists are presented in a 'check-off' format.

CHECKLIST OF RESPONSIBILITIES
for
Vocational and Special Educators
who serve
Special Needs Students

VOCATIONAL EDUCATORS:

____ Help the special educator know vocational programs.

____ Participate in placement decisions.

____ Determine entry level skills for admission to a class (what the student will need to know when the course begins)

____ Plan with the special educator to assist the student in achieving entry level skills or appropriately modifying entry level skills.

____ Plan long-range goals for exit skills (what the student will know at the end of the course).

____ Plan with the special educator to assist the student in achieving exit level skills or appropriately modifying exit level skills to prepare the student for employment.

____ Ask if vocational assessments have been done. Get the results.

____ Learn the student's strengths and needs.

____ Talk with the student about personal adaptations, academic abilities, and educational background.

____ Learn about characteristics of the handicapping condition.

____ Determine how long the student will be in the vocational class... a semester? five days ? a week? 2 hours a day? View the student's learning in relationship to the length of time in class.

____ Preview or review instructional units for lessons or strategies which will present obvious problems to the handicapped student.

____ Talk to the student, special educator, or specialists to find ways to modify specific problem areas identified above.

CHECKLIST OF RESPONSIBILITIES CONTINUED

___ Find out about resources. (ask special educators and administrators)

Personnel:

counselors
speech-hearing specialists
administrators
work-experience coordinators
special educators
interpreters
aides
State Department personnel (consultants)
University personnel (consultants)

Community and Government Agencies:

Vocational Rehabilitation Agencies
Social Security Agencies
Mental Health Agencies
Health and Welfare Agencies
U.S. Superintendent of Documents

Support Organizations:

Lions, Rotary, etc.
Churches
Philanthropic Business and Industry (e.g. The "Pioneers")

Information sources such as The National Association for the Blind, Epilepsy Foundation, United Cerbral Palsy Association.

___ Plan grouping strategies, considering content and student needs
individual learning modules
small group
large group

___ Visit the resource room to become aware of what is available to the student.

___ Share materials (and cooperatively select materials) with the special educator.

___ Plan how you will evaluate student progress.

___ Ask for conference time with special educators and other resource people.

SPECIAL EDUCATORS:

___ Learn about vocational programs in the school district.

___ Assist students, parents, vocational educators, and other professionals in determining placement decisions.

___ Discuss course entry and exit level skills with vocational educators.

___ Assist in modifying of adapting the student's entry and exit level skills, being sure to maintain quality objectives that will prepare the student for employment. When appropriate, provide assistance to the student in achieving entry level skills.

CHECKLIST OF RESPONSIBILITIES CONTINUED

____ Provide resources to the vocational educator for learning about handicaps.

____ Help the student develop good working skills (prevocational skills, especially).

____ Plan with vocational educators for work experience programs that will have realistic employment opportunities for the student upon completion of high school program.

____ Suggest behavior management strategies (especially those behaviors necessary for success in the work world).

____ Suggest techniques for presenting material to students with special learning needs.

____ Reinforce materials learned in the vocational class or shop.

____ Provide supplemental learning for the student in basic academic skills.

____ Share materials (and cooperatively select materials) with the vocational educator.

____ Plan formal conferences with the vocational educator.

____ Be available for informal conferences with the vocational educator.

MASTER
Overhead Transparency
Special Needs Student

CURRICULAR MODIFICATIONS: THE STUDENT WITH SPECIAL LEARNING NEEDS

Tools/equipment/materials

Specialists

Time management

Setting Objectives

Generalization

Repetition

Giving directions

Alternatives to reading/writing

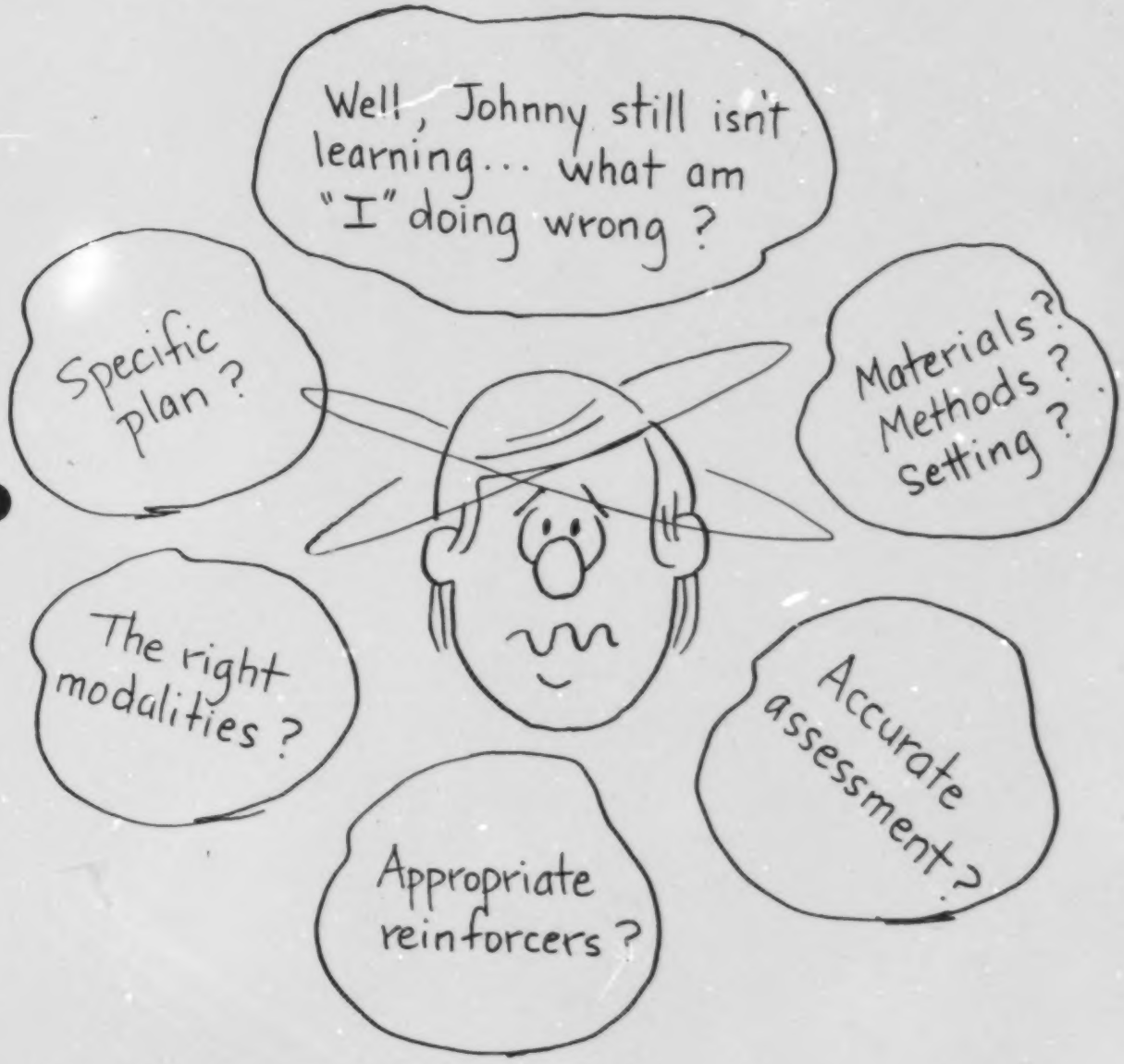
Feedback to students

Evaluation and grading

Peer interaction

Grading

MASTER
Overhead Transparency
Special Needs Student



From: Mainstreaming Series
Teaching Resources

From: Mainstreaming Series
Teaching Resources

Does the student project a favorable image to other people through his/her personal appearance and behavior?

If we must answer "no" to these questions, we may be neglecting some very critical aspects of our student's education.

From: Mainstreaming Series
Teaching Resources

HEARING IMPAIRMENT

CURRICULAR ADAPTATIONS FOR STUDENTS WITH HEARING IMPAIRMENTS

Below are suggestions for classrooms and buildings, equipment, and instructional strategies for hearing impaired students. This is not an exhaustive list. (Those presented here are some of the more commonly used and simple to implement). Sources for additional modifications may be found in the bibliography at the end of this working paper.

Classroom & Building

Arrange the classroom or shop so that the student is in close physical proximity to the instructional action. Face the student when you talk.

Set up the classroom or shop with moveable desks and tables, and with flexible group arrangements so the student can find optimal locations for visual cuing.

Avoid standing and speaking areas that have glares and shadows from lights and windows. Make it easy for the student to use visual cues.

Give directions in spoken and written posted forms.

If the student uses sign language, learn a few basic signs for direction giving.

Arrange with the student for visual cues to indicate safety needs or directions such as time to begin, time to stop, time to come to the lecture area. This is especially important for communicating in noisy areas.

Keep down peripheral noise in the classroom. Remember that the student who has a hearing aid is hearing an amplification of all sounds not just that of the spoken word.

Use a buddy notetaker system to give the student a break from having to do two jobs at once (i.e. a student who must read lips or watch an interpreter will have trouble simultaneously taking notes).

Watch for student fatigue.

Equipment/Materials/Tools

The following is a list of examples of equipment/materials and tools:

- typewriter lights for indicating end of right margin
- flipcharts with pictures or drawings to visually cue with a spoken lecture
- small lights to illuminate an interpreter when the room must be darkened for a film
- telephone amplifiers
- lights that blink warnings for safety equipment such as fire alarms
- overhead projectors rather than chalkboard so that the instructor can face the class
- tape recorder for parents and friends to transcribe notes

Instruction

When lecturing, speak at a moderate rate and use normal mouth movement. This helps lip readers.

Use natural gestures, avoid excessive movement.

Use gestural cues when communicating. Point, glance, touch.

Use visual aids such as pictures, key words, samples, demonstrations, captioned filmstrips.

Touch the student if attention is not given or seems to be wandering.

Ask the student to demonstrate that a concept is understood.

Post assignments.

Give the student a copy of your lecture notes.

Post key words and phrases before a lecture and before new material is presented.

Provide "read-ahead" work.

Encourage two-way discussions.

Ask the student questions and expect a response.

Encourage the student to have statements repeated when necessary.

During demonstrations give verbal directions, then demonstrate the procedure.

Develop "hands on" and concrete samples and materials.

CHECKLISTS OF RESPONSIBILITIES

Below are lists of responsibilities for vocational and special educators who jointly serve students with hearing impairments. These lists are provided to help in planning programs for special impairments needs students. The lists are presented in a "check-off" format.

CHECKLIST OF RESPONSIBILITIES

for
Vocational Educators
who serve
Students with Hearing Impairments

____ Find out about available resources including:

- ____ Related service people
  - ____ counselor
  - ____ speech/hearing specialist
  - ____ special educator
  - ____ interpreters
- ____ Community resources
  - ____ vocational-rehabilitation agency
  - ____ employers
  - ____ telephone company
- ____ Organizations (check with Hearing Specialists for service organizations and their addresses).

____ Talk with the student.

____ Learn about the student's specific hearing impairment.

____ Learn about the student's abilities including hearing, vision, adaptations, academic achievement and ability.

____ Find out about methods of communication used by hearing impaired students including sign language, lip reading, hearing aids, or writing.

____ Don't underestimate the student. The student's intelligence is not impaired; hearing is impaired.

____ If appropriate, learn about hearing aids and maintenance.

____ Learn about possible adaptive equipment (ask hearing specialist).

____ Examine and, if necessary, re-arrange the classroom environment so the student has optimum opportunity for lip-reading and making best use of a hearing aid.

CHECKLIST OF RESPONSIBILITIES CONTINUED

____ Find out options for emphasizing two-way communication (Student to teacher and teacher to student). Hearing impaired students often are delayed in the skills of two-way communication.

____ Find out options for emphasizing vocabulary and language development.

____ Review units of instruction and lesson plans for needed adaptations (and seek help where needed).

____ Consider learning sign language, if appropriate.

____ Read about best practice in cooperating with an interpreter.

____ Examine the need and provision for safety devices at work stations or in the classroom that are not dependent upon hearing.

CHECKLIST FOR
Special Educators
who serve
Students with Hearing Impairments

____ Assist in providing instructional strategies and materials for the regular classroom. i.e., captioned films, ideas for flip-charts, pictures, ways to make use of interpreters.

____ Support classroom instruction with special assistance in the resource room when needed. i.e., reviewing notes with the student, providing help in reading skills, resource room "time" to practice two-way communication.

____ Provide emotional support for the student in adjusting and coping. Give the student a slow-down break for less hurried and distracting one-to-one communication.

____ Check on the need for adaptive equipment (hearing aids, visual aids, typewriter lights for margin recognition).

____ Routinely check on the condition of adaptive equipment, specifically hearing aids and batteries.

____ Work with other school personnel on ecological evaluations of school settings for optimum communication between student and others (room arrangements, safety devices that require hearing, ways to communicate roles).

____ Find materials about hearing impairment that explain the student's handicap. Make materials available to applicable school personnel.

____ Provide information on resources and organizations that assist in meeting needs of people with hearing impairment.

PRACTICE EXERCISES

HEARING IMPAIRMENT

Following are descriptions of three students who have hearing impairments. These are exercises for applying some of the modifications described earlier. Worksheets to facilitate this activity are in the appendix of this manuscript. See Form I, Worksheet for Practice Exercise.

Instructions:

After reading the recommended adaptations on the previous pages of this section, do the following:

1) divide into small groups, preferably two vocational and two special educators per group;
2) read the first case study;
3) use Form I, Worksheet for Practice Exercise to determine:
   a. the students deficits and strengths,
   b. recommended adaptations,
   c. where the adaptations will take place, and
   d. who's responsible for making the adaptation

EXERCISES

Hearing Impairment: John

John is a student who just enrolled in the T and I cluster program. John wears a hearing aid to improve a congenital hearing loss. He has sporadic "battery-failure" that seems to come at inopportune times for the instructor and inopportune times for John! John is not confident about entering a vocational tract because he doubts he is employable. He is a bit below average in his school work and has frequent absences due to minor health problems.

Hearing Impairment: Peter

Peter has been deaf since birth. He attended schools for the hearing impaired until last year when he was mainstreamed in the junior high. He uses sign language and has a one-to-one aid who serves as an interpreter. Through the interpreter the teacher finds that Peter resents the need for

Exercises Continued (Peter)

the aid's constant companionship. Peter says it cramps his style. Everyone has been happy with the interpreter and the sign language up to now and Peter has been academically successful.

Hearing Impairment: Barry

Barry, a junior welding student has a minor hearing impairment. He can distinguish many sounds but has difficulty responding to instructions in the work setting because he relies heavily on lip-reading. When he is working on a project the level of activity in the shop increases his hearing difficulty. Some days Barry loses his temper while working in the shop.

MASTER
Overhead Transparency
Hearing Impairment

CURRICULAR MODIFICATIONS: THE STUDENT WITH A HEARING IMPAIRMENT

Classroom and Building

- seating arrangements
- student location
- giving directions
- safety needs
- excessive noise
- buddy systems

Equipment/Materials/Tools

- hearing aids
- lights
- visual cues
- interpreter lights
- telephone amplifiers
- overhead projectors
- tape recorders

Instruction

- lecturing
- visual aids
- getting attention
- written assignments
- tow-way communication
- demonstrations
- hands-on projects

Not all hearing *impaired people:*

- Use sign language
- Lipread or speechread
- Use understandable speech
- Wear hearing aids
- Can see well enough to compensate for their hearing loss

All hearing impaired people have a communication problem to some degree, either in expressing ideas or in understanding language.

From: Mainstreaming Series
Teaching Resources

Use natural gestures as you would use in talking with anyone else.

MASTER
Overhead Transparency
Hearing Impaired

From: Mainstreaming Series
Teaching Resources

MASTER
Overhead Transparency
Hearing Impaired

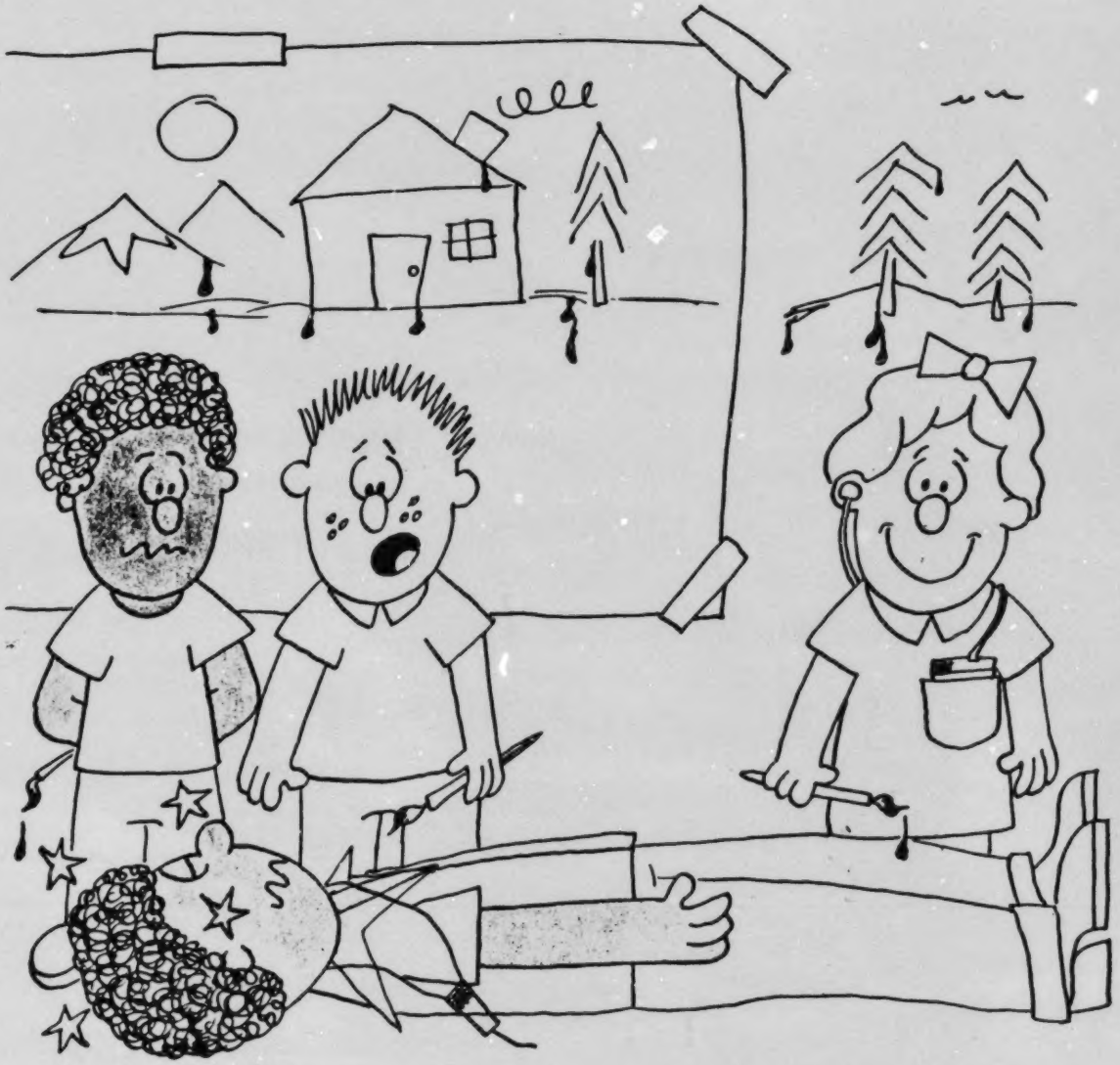
Parents can transcribe tape recordings into note form so their hearing impaired child will have the same information as the rest of the class.

From: Mainstreaming Series
Teaching Resources

MASTER
Overhead Transparency
Hearing Impaired

FEELINGS AND EXPECTATIONS

Expect the same kind of behavior, responsibility, and dependability from the hearing impaired student as you would expect from the rest of the class.



From: Mainstreaming Series
Teaching Resources

VISUAL IMPAIRMENT

CURRICULAR ADAPTATIONS FOR STUDENTS WITH VISION IMPAIRMENTS

Below are suggestions for adaptations of classrooms and buildings, equipment and instructional strategies for students with visual impairments. This is not an exhaustive list of adaptations. Those presented here are some of the more commonly used and simple to implement. Sources for additional modifications may be found in the bibliography at the end of this paper.

Classroom and Building

Provide orientation for the student to the school building.

Provide orientation for the student to the work stations and classroom. Make sure that the student knows the way to exits, where steps are, and where restrooms and drinking fountains are.

Assist the student with a good place to store personal equipment. An end locker is easy to locate.

Orient the student to safety problems and plan with the student for safety evacuation.

Seating arrangements for the visually impaired student should be made so the student can hear clearly. Be aware of assisting the student in using residual sight by providing seating near chalkboards, visual media, and teaching materials.

The student with a visual impairment depends on auditory cues for mobility and orientation and mode of learning. Be alert to extraneous noises and distractions such as air condition noise and hallway noise that can interfere with the student's learning.

Provide adjustable table tops to prevent student fatigue from bending over a flat desk. (Place an easel atop a stationary flat desk for reading, writing, drawing, etc.)

Provide special writing paper that has a dull finish and wide green lines.

The best writing utensils for a visually impaired student make thick, dark marks (i.e. felt-tip pens, heavy lead pencils).

For ditto copies, darken purple print with a black felt pen.

Classroom and Building Continued

Place yellow acetate over print to increase the contrast between print and background paper to aid the student.

Make all board writing large, clear, and legible. Clean the board frequently.

Make sure work stations and class work areas are well-lighted and free of glare.

Don't worry about the student who gets "too close" to work. The student will find his most comfortable position for working.

Let the student do part of written assignments at the chalkboard to prevent fatigue. Use wide, white chalk on a green board.

Encourage the student to use large print typewriters for written assignments.

Provide bookmarks for the student for easier reading. Acquire reading slits for use with reading assignments. (Reading slits are dark pieces of paper with slits which expose a line or two of print at a time).

Keep the work stations/classroom free of hazards which are unknown and unseen by the vision impaired student. For example, keep floors free of hazardous obstacles; keep doors and cabinets closed or open, not half open.

Keep an orderly shop/classroom but change things around from time to time being sure to tell the student about changes.

Tell the student if you enter or leave the area.

Equipment/Materials/Tools

(Check with a vision specialist for appropriate aids for students with visual impairments).

Tape recorders
Overhead projectors: Let the student look directly into the magnifier rather than at the projected image.
Opaque projectors for enlarging print, graphs, pictures, diagrams
Talking cash registers
Scales with auditory signals
Braille books
Large print books
Talking books
Brailler, slate and stylus
Reading stands
Self-threading needles
Braille micrometers
Guides/templates to help students align objects
Raised markings to identify controls on machines

Equipment/Materials/Tool Continued

Raised clock faces
Braille rulers
Raised line drawing boards
Braille maps, charts, diagrams

(For Partially sighted)
Low Vision Aids
-monoculars
-binoculars
-microscopic and telescopic spectacles
-magnifiers
-larger signs
-color coded signs

(For Blind)
Optacon (Optical to Tactile Converter)
-converts print to light patterns to tactile patterns
-attachments for reading what is being typed while typing
-attachments for computer and word processing

Steretoner
-converts print to tone patterns

Instruction

Use large print or talking books for reading assignments, if appropriate (Available from the American Printing House for the Blind. Check with a vision specialist for addresses).
CAUTION: A student with a vision impairment should ordinarily use the smallest print size that can be read comfortably by the student.

If the student reads braille, be aware that braille reading rate is slower than sight reading rate. Braille rate is impacted by the same variables of levels of difficulty as is sight reading.

Assign classroom of work station responsibility to the student just as you do other students (i.e., washing tools, cleaning brushes, putting away cooking utensils).

If appropriate, braille-label tooks, storage bins, equipment.

Select with the student the learning modes most effective for the student (i.e., lectures, tape recordings, tactile demonstrations, peer teaching).

Find out the student's most effective reading preference (i.e., braille, large print, tape recording, reading aid equipment).

Examine the work station/classroom with the student to determine how mobile the student may be in the area.

Instruction Continued

Clearly state course objectives and give clear verbal directions in describing class activities.

Give the student materials and handouts ahead of classtime so the material may be brailled or taped.

Try to include the student in all lab activities if possible. If the student cannot participate in the acitivity, try to have an alternate activity that helps the student meet course objectives.

Have a fellow student carbon copy or photocopy notes for the vision impaired student.

Alternate periods of close visual tasks with listening activities or tactile demonstrations.

Give descriptive verbal directions. For example, rather than pointing to a knob on a machine and saying, "Turn this know", say, "The first knob on the bottom left of the face of the machine...". If you use left and right as descriptive terms be sure to give directions in relationship to the student's body.

If machinery, equipment, or materials need to be adapted check with the vision specialist.

CHECKLISTS OF RESPONSIBILITIES

Below are lists of responsibilities for vocational and special educators who jointly serve students with vision impairments. These lists are provided to help in planning programs for special needs students. The responsibilities are arranged in a more or less chronological order. The lists are presented in a"check-off"format.

CHECKLIST OF RESPONSIBILITIES
for
Vocational Educators
who serve
Students with Vision Impairments

____ Have a checklist of entry level skills for your course. Plan with student, parents, and other school personnel to help make appropriate placement in a vocational course. If the student needs additional pre-skills to meet entry level criterian,plan with the student, parents, and school personnel to either modify or adapt entry level skill requirements when appropriate.

____ Have a checklist of exit level skills for your course. Present these to the student, parents, and other school personnel to assist in planning eventual employment. If a student will have difficulty meeting exit level skills as presented, discuss ways to modify the skills and still prepare the student to be employable.

____ Have an orientation visit with the student, if possible, prior to the first actual class period. Give the student a guided tour of the classroom.

____ Talk to the student's parents and other specialists to find out about appropriate classroom adaptations, and the student's educational background and abilities in orientation and mobility.

____ Talk to the student to find out about special adaptive aids or techniques that have helped in other classes.

____ Find out how the student reads and writes. Can the student read print? What size print?

____ Learn about the student's specific vision impairment.

____ Find out about resources including:
____ Related service people
vision specialists
special educators
counselors

CHECKLIST OF RESPONSIBILITIES CONTINUED

____ Resources (continued):
____ Community resources
Lions Club
Vocational-Rehabilitation
Employment agency

____ Organizations

____ Remove hazardous obstacles from class/shop to the extent possible. (Point out necessary obstacles during the orientation visit).

____ Analyze equipment, tools, storage, and other classroom and lab materials to see what modifications need to be made (including braille-labeling, color-coding, tape-recording).

____ If braille is the student's main reading preference, find out how brailling will be done, who will do it, and what responsibilities you have for assisting.

____ Review lectures and demonstrations to be sure they include descriptive vocabulary and tactile experiences for the student. Help the student by planning "listening skills" into instruction.

____ Don't neglect instruction in personal grooming skills for the student with a vision impairment.

____ Don't underestimate the student. Remember the student has a vision impairment not a mental impairment.

CHECKLIST OF RESPONSIBILITIES
FOR
Special Educators
who serve
Students with Vision Impairments

____ Find out the entry level skills required for the vocational courses to better assist in placement decisions. Plan with vocational educators to help students develop entry level skills or to modify or adapt entry level skills if appropriate.

____ Find out the exit level skills required for the vocational course so plans can be made for appropriate modifications or adaptations that will maintain the student's ability to be employable. Plan with the vocational educator to adapt or modify the exit level skills when appropriate.

____ Provide information about the students vision impairment to the vocational teachers.

____ Share assessment information with the vocational educator concerning the students reading preference, reading rate, and writing abilities.

CHECKLIST OF RESPONSIBILITIES CONTINUED

____ Cooperate with the vision specialist and the vocational teacher to analyze the school, classroom, and work station areas for equipment modification.

____ Work with the vision specialist to make the best use of adaptive aids for the student's learning.

____ Assist in providing instructional strategies and in obtaining materials for the regular classroom, if appropriate. (i.e., options to pencil-paper test, brailler and adaptive equipment)

____ Help the student to prepare for vocational classes by planning with the vocational teachers for additional related hands-on learning in the resource room.

____ Support vocational classroom instruction with tutorial help in academically related areas. Plan this with the student and the vocational educator.

____ Assist in orientation and mobility training for the student as prescribed for the student by a vision specialist.

____ Assist the student in developing good listening skills.

____ Assist the student in the resource room with instruction in personal grooming skills.

PRACTICE EXERCISES

VISION IMPAIRMENT

Following are descriptions of three students who have vision impairments. These are exercises for applying some of the modifications described earlier. Worksheets to facilitate this activity are in the appendix of this manuscript. See Form I, Worksheet for Practice Exercise.

Instructions:

After reading the recommended adaptations on the previous pages of this section do the following:

1) divide into small groups, preferably two vocational and two special educators per group;
2) read the first case study;
3) use Form I, Worksheet for Practice Exercise to determine:
   a. the students deficits and strenghts,
   b. recommended adaptations,
   c. where the adaptation will take place, and
   d. who's responsible for making the adaptation

EXERCISES

Vision Impairment: Mark

Mark is a junior in the second year of the auto mechanics program. Mark was fully sighted until early this year when he lost some of his sight in a hunting accident. He can distinguish light and darkness, shapes and forms, and very bright colors. He cannot read standard print.

Mark was a marginal student academically before the accident but was a superior student in the auto shop. He is returning to school on Monday. He has been hospitalized for most of the time he has missed school, but has not had visual training in mobility and orientation, or in making adaptations to his handicap.

(Today is Friday. Mark's mother called the school principal today to say that Mark will return on Monday. A memo from the principal's office explaining Mark's return has been received by 4 academic class instructors, the auto mechanics instructor, and the special educator.)

Exercises Continued

Vision Impairment: Marty

Marty is a sophomore in beginning typing class. She has a severe vision impairment and struggles to use the instructional manual that the teacher suggests. She types correctly but is slow because she has trouble reading the manual. Grading for the typing class is based on speed, accuracy and form. Marty has a cousin who is employed as a typist and she hopes to follow in her footsteps. Because Marty's grade is low she is fast losing enthusiasm and is becoming frustrated. Marty is of average intelligence, and reads well with an optacon. Her reading comprehension scores are above average, but reading rate is below average.

Vision Impairment: Sarah

Sarah is a pretty, popular senior who is exceptionally bright. She has a severe vision impairment. She is in her third year of Home Economics and has had few problems in making adaptations to this program. A new special education director has targeted Sarah as a handicapped student who is not being served by the Special Education program. He is pressuring the Home Ecoromics teacher to make a referral. He has contacted Sarah's parents who were not in the past particularly concerned about a special education placement for Sarah. Because of this contact, Sarah's parents have become concerned about her program.

MASTER
Overhead Transparency
Vision Impairment

CURRICULAR MODIFICATION: THE STUDENT WITH A VISION IMPAIRMENT

Classroom and Building

- orientation
- personal space
- safety problems
- seating arrangement
- special tips for writing, reading, work stations
  - lighting
  - paper
  - pens
  - dittos
  - yellow acetate
  - board writing
  - typewriters
  - reading slits
- classroom hazards

Equipment/Materials/Tools

- tape recorders
- overhead projectors
- opaque projectors
- calculators
- braillers
- talking books
- raised labels
- guides/templates
- low vision aids
- aids for blind

MASTER
Overhead Transparency
Vision Impairment

Instruction

reading/writing assignments

non-reading assignments

braille labeling

learning modes: auditory-lecture
tactile-hands on demonstration
peer interaction

classroom/work-station mobility

verbal directions

alternative lab activities

specialists

MASTER
Overhead Transparency
Vision Impairment

- Desks with adjustable tops are almost essential, since constant bending over a flat desk can result in fatigue and discomfort. The desk top should be close enough and comfortable so that it reduces glare and shadow. An alternative is to place an easel atop the desk for reading and writing.

From: Mainstreaming Series
Teaching Resources

PHYSICAL IMPAIRMENT

CURRICULAR ADAPTATIONS FOR STUDENTS WITH PHYSICAL IMPAIRMENTS

Below are suggestions for adaptations of classrooms and buildings, equipment, and instructional strategies for students with physical impairments. This is not an exhaustive list of adaptations. Those presented here are some of the more commonly used and simple to implement. Sources for additional modifications may be found in the bibliography at the end of this paper.

Classroom and Building

Doors should open with 8 lbs., or less pressure.

Use ramps to compensate for steps (1" rise per ft. - or less).

Restrooms should have handrails and be at least 36" by 72". Also, have low sinks and mirrors.

There should be accessibility to all floors or at least all programs.

Desks should by between 29-36 " high.

Doorways should be 32-36 " wide.

Classroom aisles should be 32" or more wide.

Have low coat hooks.

Equipment/Materials/Tools

The following is a list of useful equipment:

electric can openers
one-handed beaters and potato mashers
various jigs for industrial arts classes
surgical forceps for reaching
stick to push buttons or levers
extended handles

Equipment/Materials/Tools Continued

Useful equipment continued

tape recorder to record lessons

pencil holder

rubber mats over slippery floors

tape paper to desk

Instruction

Provide cassette recorded messages, memos, instructions, etc.

Allow another student to take notes, using a carbon paper.

Give student a prepared outline of lecture.

Provide more time for completion of all activities (academics, clean-up, and transitions).

Allow the student to take fewer classes.

Pair students with nonhandicapped peers who can provide needed assistance.

Allow a time before school begins for student to become acquainted with teachers and physical facilities.

Be accommodating to many absences for medical reasons.

Encourage home visits by the student's peers.

Know emergency procedures that are likely to be needed.

CHECKLISTS OF RESPONSIBILITIES

Below are lists of responsibilities for vocational and special educators who jointly serve students with physical impairments. These lists are provided to help in planning programs for special needs students. The lists are presented in a "check-off" format.

CHECKLIST OF RESPONSIBILITIES
for
Vocational Educators
who serve
Students with Physical Impairments

____ Find out about available resources including:

____ Related service people
counselor
physical therapist
special educator

____ Community resources
vocational-rehabilitation agency
employers

____ Organizations (ask physical therapist for names and addresses)

____ Talk with the student.

____ Learn about the student's physical impairment.

____ Learn about the student's abilities including independence skills, academic achievement and ability, adaptations.

____ Don't underestimate the student. The student is physically impaired not mentally impaired.

____ If appropriate learn about prosthetic devices and maintenance.

____ Learn about possible adaptive equipment (Ask physical therapist).

____ Examine and if necessary, re-arrange the classroom environment so the student has optimum opportunity for access to needed supplies and activities with minimum interruption.

____ Review units of instruction and lesson plans for needed adaptations (and seek help where needed).

CHECKLIST OF RESPONSIBILITIES CONTINUED

____Assign one or more peers to assist student in performing difficult activities (setting up labs, movement at class change times, school arrival and departure).

____ Examine the needs and provision for safety procedures and devices.

CHECKLIST OF RESPONSIBILITIES
FOR
Special Educators
who serve
Students with Physical Impairments

____ Assist in providing instructional strategies and materials for the regular classroom, if appropriate.

____ Support classroom instructions with special assistance in the resource room when needed (training safety skills and pre-requisite vocational).

____ Provide emotional support for the student in adjusting and coping (give the student a slow-down break for less hurried and distracting one-to-one communication).

____ Check on the need for and the possibility of use for adaptive equipment (jigs, tape recorders, typewriter templates, pencil holders, etc.).

____ If applicable, routinely check on the condition of adaptive equipment.

____ Work with other school personnel on ecological evaluations of school settings for optimum communication between student and others (room arrangements, safety devices, peer support, architectural barriers).

____ Find materials about physical impairment that explain the student's handicap. Make materials available to applicable school personnel.

____ Provide information on resources and organizations that assist in meeting needs of people with physical impairments.

____ Jointly conduct parent conferences with vocational educator.

PRACTICE EXERCISES

PHYSICAL IMPAIRMENT

Following are descriptions of three students who have physical impairments. These are exercises for applying some of the modifications described earlier. Worksheets to facilitate this activity are in the appendix of this manuscript. See Form I, Worksheet for Practice Exercise.

Instructions

After reading the recommended adaptations on the previous pages of this section do the following:

1) divide into small groups, preferably two vocational and two special educators per group;
2) read the first case study;
3) use Form I, Worksheet for Practice Exercise to determine:
   a. the student's deficits and strengths,
   b. recommended adaptations,
   c. where the adaptation will take place, and
   d. who's responsible for making the adaptation

EXERCISES

Physically Impaired: Betty

Betty is a sophomore. She is a quadriplegic and has limited use of her arms and hands. Writing is difficult. Turning pages is also a problem. She has just moved from another high school -- a small, rural program where there were few electives. Betty is an average student. She could probably do much better if it weren't for so many absences for health reasons. She is not sure what she wants to do after graduation. Part of the reason is that she is dependent on others for assistance in dressing, meal preparation, and mobility. (Note: She has an electric wheel chair.)

Physical Impairment: Franklin

Franklin is a capable freshman who has been in a wheel chair since the sixth grade. He is a paraplegic as a result of an auto accident. He has good use of his arms and upper body. He does well in all his academic subjects. At this time he wants to be an engineer, probably a civil engineer. His parents encourage him to set realistic goals and to work diligently toward them. When he was a little boy, he often talked about becoming President, but has now dismissed those childish plans.

Physically Impaired: Doug

Doug is a high school sophomore who contacted polio when he was four years old in Korea. Since that illness, Doug has had a brace on his left leg, which is much shorter than his other leg and partially paralyzed. He is able to walk slowly and does drag his left leg a little. He is a very bright boy and attempts everything - playing basketball, dancing, snowmobeling, etc. He frequently falls down when doing physical activities but always pulls himself back up and continues on . He can climb stairs without difficulty. He has many friends and is seen as a courageous and intelligent friend.

Curricular Modifications: The Student with a Physical Impairment

Classroom & Building

Doors

Steps

Classroom

Restroom

Equipment/Materials/Tools

Home Economics

Trade & Industries

General classroom

Instruction

Use of peers

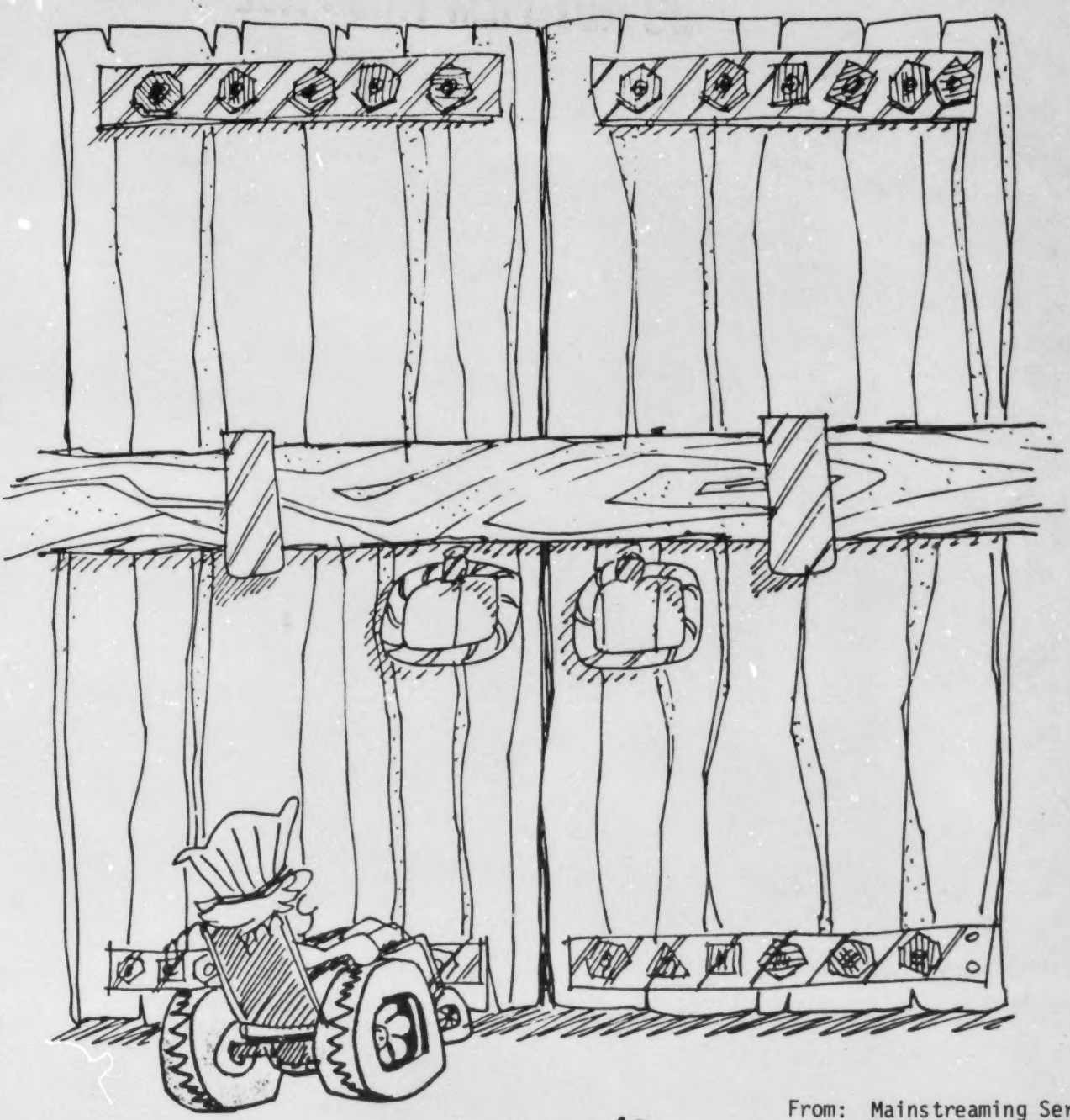
Slow pace

Absences

Entry Stairs: Can be a barrier to students who require a ramp or elevator.

From: Mainstreaming Series
Teaching Resources

Entry Doors: That are difficult to open because they are too heavy or have excessive tension can pose a formidable barrier to some students.



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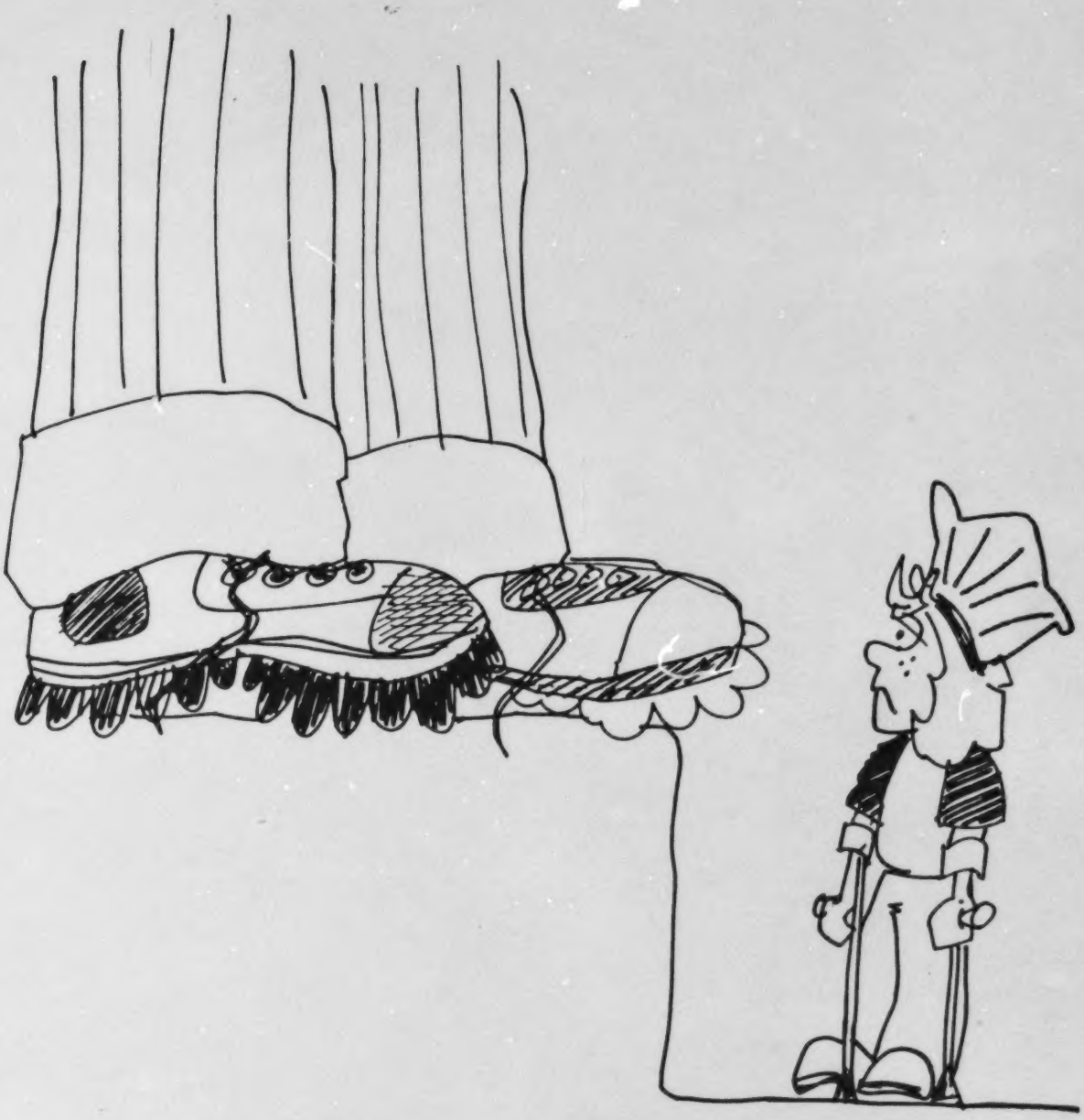
Teaching Resources

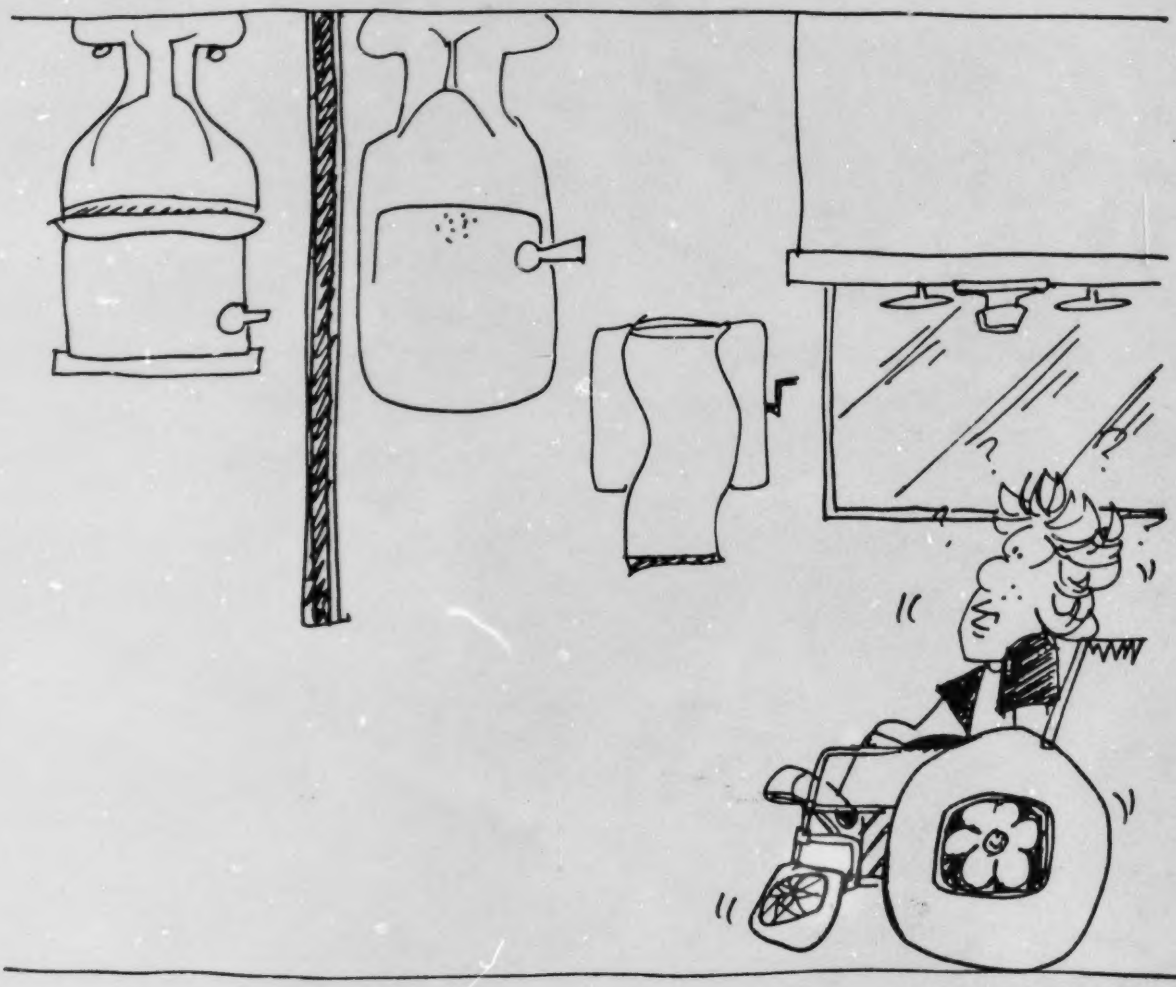
Curbs: No curb cuts make it difficult for many physically handicapped students to gain access to school sidewalks.



From: Mainstreaming Series
Teaching Resources

Passage Widths: Door openings that are too narrow to accommodate a wheelchair.

Restroom Facilities: Inappropriate placement of stools, sinks, mirrors, and towels make them inaccessible to many physically handicapped students.



Raised stools with bars and lowered sinks, mirrors, and towels are necessary.

From: Mainstreaming Series
Teaching Resources

EMOTIONAL IMPAIRMENT

CURRICULAR ADAPTATIONS FOR STUDENTS WITH EMOTIONAL IMPAIRMENTS

Below are suggestions for adaptations of classrooms and buildings, equipment and instructional strategies for students with emotional impairments. This is not an exhaustive list of adaptations. Those presented here are some of the more commonly used and simple to implement. Sources for additional modifications may be found in the bibliography at the end of this paper.

Classroom & Building

Provide a non-distracting place for the student to work.

Equipment/Materials/Tools

Adopt curricular materials that divide into small units

- -pre and post tests
- -learner objectives
- -small amounts of reading per unit
- -self-grading keys

Instruction

Use simple non-intrusive management strategies when possible, e.g.:

- - ignore some disruptive behaviors
- -use humor to defuse tension
- -use physical closeness to control behavior
- -remove the student from a situation or change the acitivty.

Use more intrusive procedures, such as suspension, time-out, or calling parents, only when less intrusive strategies fail.

Provide an orderly routine.

Make as few transitions as possible. Prepare the student for them.

Instruction Continued

Don't make student feel cornered; have confrontations in private.

Have provisions for privacy on new tasks to avoid embarrassement.

Show willingness to help the student.

-be friendly, not hostile

-be objective, not personally threatened

-invite student response

Have a calm atmosphere.

Encourage and reward peers for assisting the student.

Use a contingency management system with the assistance of the psychologist or special education teacher.

CHECKLISTS OF RESPONSIBILITIES

Below are lists of responsibilities for vocational and special educators who jointly serve students with emotional impairments. These lists are provided to help in planning programs for special needs students. The lists are presented in a "check-off" format.

CHECKLIST OF RESPONSIBILITIES
for
Vocational Educators
who serve
Students with Emotional Impairments

____Find out about available resources including:

____ Related service people
counselor
psychologist
special educator

____ Community resources
vocational-rehabilitation agency
employers
mental health services

____ Organizations

____Talk with the student to establish rapport.

____Learn about the student's emotional impairment.

____Learn about the student's academic achievement and ability.

____Find out about methods to communicate with emotionally impaired students (i.e., active listening techniques).

____Don't underestimate the student.

____If necessary, re-arrange the classroom environment so the student has a non-distracting place to work occasionally.

____Review units of instruction and lesson plans for needed adaptations (and seek help where needed).

____Ask about best practice in cooperating mental health and other support services.

CHECKLIST OF RESPONSIBILITIES
for
Special Educators
who serve
Students with Emotional Impairments

____Assist in providing instructional strategies and materials for the regular classroom, if appropriate (i.e., unit-ized curricula, behavior management strategies).

____Support classroom instruction with special assistance in the resource room when needed (i.e., reviewing notes with the student, providing help in reading and math skills, training pre-requisite vocational skills).

____Provide emotional support for the student in adjusting and coping (friendly supportive climate).

____Work with other school personnel on ecological evaluations of school settings for optimum communication between student and others (peer and staff support of student).

____Find materials about emotional impairment that explain the student's handicap. Make them available to appropriate school personnel.

____Provide information on resources and organizations that assist in meeting needs of people with emotional impairment.

____Jointly conduct parent conferences with vocational educators.

PRACTICE EXERCISES

EMOTIONAL IMPAIRMENT

Following are descriptions of three students who have emotional impairments. These are exercises for applying some of the modifications described earlier. Worksheets to facilitate this activity are in the appendix of this manuscript. See Form I, Worksheet for Practice Exercise.

Instructions

After reading the recommended adaptations on the previous pages of this section do the following:

1) divide into small groups, preferably two vocational and two special educators per group;
2) read the first case study;
3) use Form I, Worksheet for Practice Exercise to determine:
   a. the students deficits and strengths,
   b. recommended adaptations,
   c. where the adaptation will take place, and
   d. who's responsible for making the adaptation

EXERCISES

Emotionally Impaired: Sampson

Sampson is an extremely shy junior who has never done well in school. On tests he gets C's. He lives with his elderly mother; the father died when he was five years old. Sampson is a loner both in and out of school. His teachers say that he often seems to be "somewhere else". His only hobby is electronics. He spends quite a bit of time playing video games at Safeway.

Emotionally Impaired: Misty

Misty is a 14-year old freshman in high school who is having a great deal of trouble making friends and relating to her own peer group and her teachers. She was diagnosed emotionally disturbed when 12 years old. She has a punk haircut and wears T-shirts with risque slogans written on them. She often reacts in an inappropriate behavior in social situations -- example,

Exercises Continued (Misty)

leaving school during gym class because she was not selected leader. Her parents are very concerned about her future and tend to handle her with a great deal of patience and permissiveness.

Emotionally Impaired: Susie

Susie is a well-developed, attractive 16-year old girl who has been raised in a sheltered home by older parents. She has been diagnosed as an emotionally impaired child since she was four years old. Susie appears not able to learn even though she seems healthy and has an average I.Q. She has great difficulty relating to her own peer group. Susie cries easily and withdraws from any group situation. At home her parents say she enjoys cooking but only with help from the parents. Her parents are expecting her to live with them after her graduating from high school.

MASTER
Overhead Transparency
Emotional Impairment

CURRICULAR MODIFICATIONS:

THE STUDENT WITH EMOTIONAL IMPAIRMENT

CLASSROOM AND BUILDING

Non-distracting place for occasional use

EQUIPMENT/MATERIAL/SUPPLIES

Adopt materials that are in small units

INSTRUCTION

Surface management strategies

Routine and transitions

Social climate

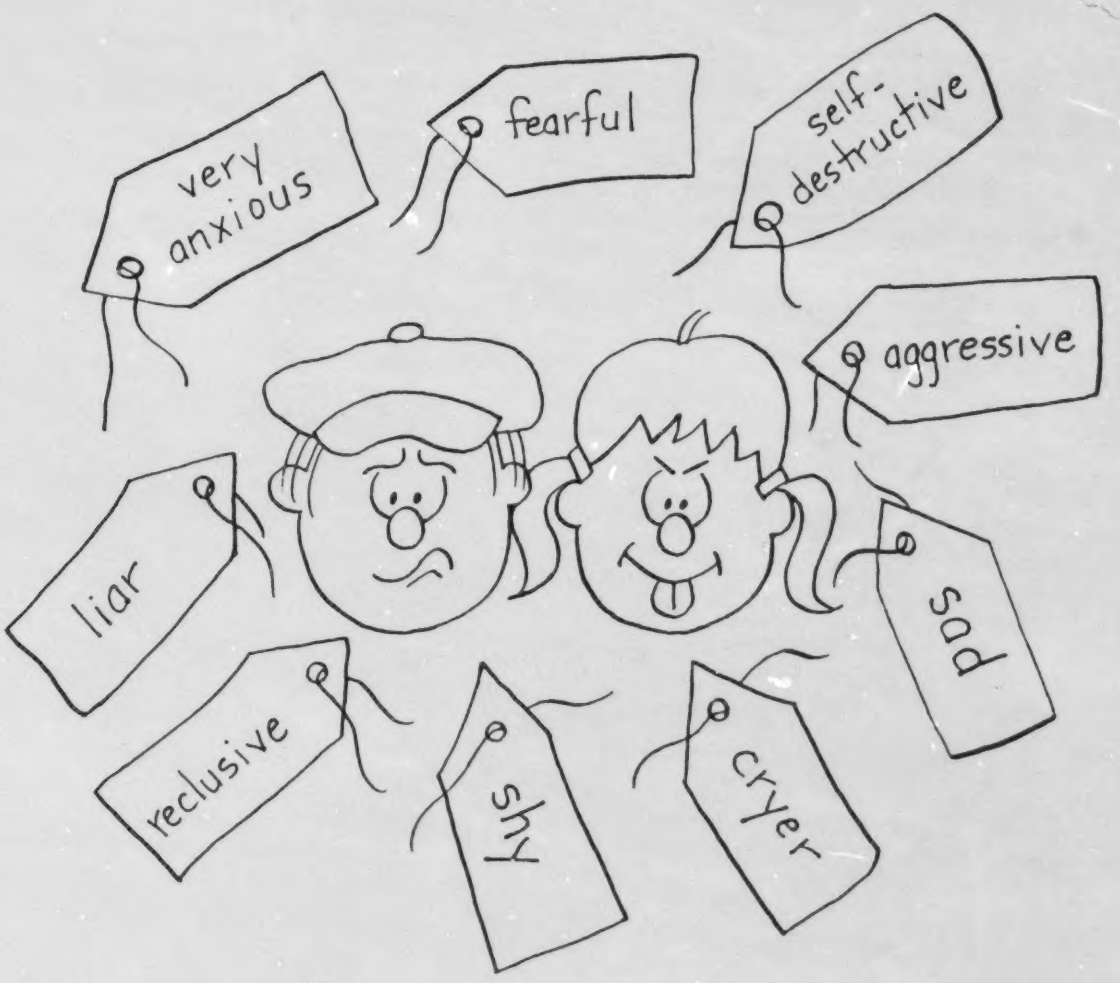
Contingency management

MASTER
Overhead Transparency
Emotional Impairment

What are behavior disordered children like? First, they fit no single description. They are so different that one definition is relatively valueless. The types of behaviors, as well as their severity, are extremely variable from one child to another.

From: Mainstreaming Series
Teaching Resources

Obviously, there is no single description of a child with a behavior disorder. Behavior disordered children come in many forms, with greater and lesser degrees of severity.



The four major approaches are:

Psychodynamic

Psychoneurological

Psychoeducational

Behavioral

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Teaching Resources

MASTER
Overhead Transparency
Emotional Impairment

The teacher should be an overseer of orthopedic appliance maintenance and inform the student or parents when repair work appears needed.

From: Mainstreaming Series
Teaching Resources

Monitoring the effects of medication is an important responsibility of the classroom teacher. Frequent feedback should be provided to the parents and physician on the student's classroom behavior.

From: Mainstreaming Series
Teaching Resources

Sometimes it might be necessary to structure recess activities so the physically disabled student can participate and experience some degree of achievement.

For example, a child in a wheelchair may find archery more rewarding than baseball or basketball. The important thing is—there need to be activities that they can participate in and succeed in.

From: Mainstreaming Series
Teaching Resources

MENTAL IMPAIRMENT

CURRICULAR ADAPTATIONS FOR STUDENTS WITH MENTAL IMPAIRMENTS

Below are suggestions for adaptations of classrooms and buildings, equipment, and instructional strategies for students with mental impairments. This is not an exhaustive list of adaptations. Those presented here are some of the more commonly used and simple to implement. Sources for additional modifications may be found in the bibliography at the end of this paper.

Classroom and Building

Particular classroom modification is not necessary for a student with a mental impairment.

Equipment/Materials/Tools

Modify tools for easier and safer use.

-jigs

-color coding

-safety devices

Curricula adopted for moderately handicapped students should focus on the practical skills of daily living.

Instruction

Be concrete and repeat information

-use plain direct statements

-be specific

Use lists rather than paragraphs.

Depict rules, safety instructions, etc. with pictures.

Use checklists to allow students to check off each part of the completed task. Print directions on the board.

Use visual aids and keep them uncluttered.

Instruction Continued

Give rapid and specific feedback on performance.

Give nonverbal feedback

-point

-physically block an error. e.g., as you see a student making in incorrect movement, gently stop the action.

-physically guide learner, e.g., help him execute the correct movement.

Acknowledge and give credit for small improvements.

Give student a chance to correct work.

Break skill down into small steps (Task Analyze).

Use chaining techniques of training

-forward technique, e.g., Teach first skill first.

-backward technique, e.g., Teach final step of a skill sequence first.

Have student match to sample, using distractors. (Student matches his response to correct and incorrect examples)

Keep unstructured time to a minimum.

Train for generalization of the newly learned skill

-across setting, e.g., school to home

-across tools/materials, e.g., student practices on two or more typewriters

-across people, e.g., student practices skill with two or more teachers

Make use of tutors and models

-aides

-same age as well as older age peers

-volunteers

Tape record instructions.

Instruction Continued

Develop testing practices that:

-use hands-on competency-based evaluation having student show that he or she knows what to do

-use oral tests

-compares the student with him or herself

-measures number of competencies gained

-measures trials to task completion

Have clearly specified, well-developed learning objectives.

Use objectives that are short-range.

CHECKLISTS OF RESPONSIBILITIES

Below are lists of responsibilities for vocational and special educators who jointly serve students with mental impairments. These lists are provided to help in planning programs for special needs students. The lists are presented in a "check-off" format.

CHECKLIST OF RESPONSIBILITIES
FOR
Vocational Educators
who serve
Students with Mental Impairments

____ Find out about available resources including:

- ____ Related service people
  - counselor
  - psychologist
  - special educator
- ____ Community resources
  - vocational-rehabilitation agency
  - employers
  - mental retardation services
- ____ Organizations (Ask school psychologist for names and addresses.)

____ Talk with the student.

____ Learn about the student's mental impairment.

____ Learn about the student's abilities including daily living skills, hearing, vision, adaptations, academic achievement and ability.

____ Don't underestimate the student.

____ Find options for student to practice skills.

____ Review units of instruction and lesson plans for needed adaptations (and seek help where needed).

____ Assign 1 or more peers to assist student (orientation to school; tool and equipment location, maintenance and replacement; peer tutoring).

____ Examine the needs and provision for safety procedures and devices.

CHECKLIST OF RESPONSIBILITIES
for
Special Educators
who serve
Students with Mental Impairments

____ Assist in providing instructional strategies and materials for the regular classroom, if appropriate (i.e., pictures, practice sheets, special materials).

____ Support classroom instruction with special assistance in the resource room when needed. (i.e., reviewing notes with the student, providing help in reading and math skills, resource room time to practice basic skills)

____ Provide emotional support for the student in adjusting and coping (give the student a slow-down break for less hurried and distracting one-to-one communication).

____ Check on the need for and the possibility of use for adaptive equipment.

____ Work with other school personnel on ecological evaluations of school settings for optimum communication between student and others (room arrangements, safety devices that require hearing, ways to communicate rules).

____ Find materials about mental impairment that explain the student's handicap. Make materials available to applicable school personnel.

____ Provide information on resources and organizations that assist in meeting needs of people with mental impairment.

____ Jointly conduct parent conferences with vocational educator.

PRACTICE EXERCISES

MENTAL IMPAIRMENTS

Following are descriptions of three students who have mental impairments. These are exercises for applying some of the modifications described earlier. Worksheets to facilitate this activity are in the appendix of this manuscript. See Form I, Worksheet for Practice Exercise.

Instructions

After reading the recommended adaptations on the previous pages of this section do the following:

1) divide into small groups, preferably two vocational and two special educators per group;
2) read the first case study;
3) use Form I, Worksheet for Practice Exercise to determine:
   a. the student's deficits and strengths,
   b. recommended adaptations,
   c. where the adaptation will take place, and
   d. who's responsible for making the adaptation

EXERCISES

Mentally Impaired: Steve

Steve is an 18 year old boy who has been diagnosed as mentally retarded. He has been in special education throughout his school career. His reading and math skills are low fourth grade level. Though he is friendly and even tempered, his normal age mates tend to ignore him. He has a speech impediment but is understandable. His father is a farmer. Steve works with him during the summer and will continue to work there after graduation. He has excellent self-help skills. He can care for himself well and is independent. He won the Junior Horseman prize for his county three years consecutively.

Mentally Impaired: Mary Jane

Mary Jane is 18 years old. She is apleasant girl who tries hard to please and gets along well with her peers. Her special education teacher wants

Practice Exercises Continued (Mary Jane)

her to learn some domestic skills to help her be more independent when she leaves school. She reads at 2nd grade level with difficulty. Her math skills are also at the second grade level (addition, subtraction, borrowing, carrying).

Mentally Impaired; J.P.

J.P. is a 15 year old boy who has been diagnosed as moderately retarded. His I.Q. score is 55. He reads at the first grade primer level. He is well behaved but is sometimes teased by his classmates in special education. J.P. is handy with tools of various sorts. As a result his special education teacher and parents are seeking to get him into a woodshop class to learn the basics of woodwork, e.g. hand-tool use, simple construction, etc. The woodshop teacher runs a "tight ship" but is well liked by the students. He has assisted students with mild learning problems but is not sure how J.P. will work out in his class.

MASTER
Overhead Transparency
Mental Impairment

CURRICULAR MODIFICATIONS:

THE STUDENT WITH A MENTAL IMPAIRMENT

CLASSROOM AND BUILDING

None are necessary for a mental handicap alone

EQUIPMENT/MATERIAL/TOOLS

Modification for safer and easier use

Daily living skills curriculum

INSTRUCTION

KISS system

Use non-verbal feedback

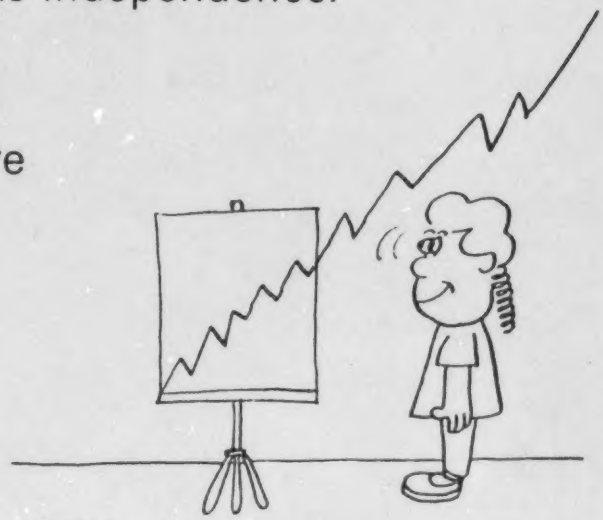
Train for generalization

Use tutors and aides

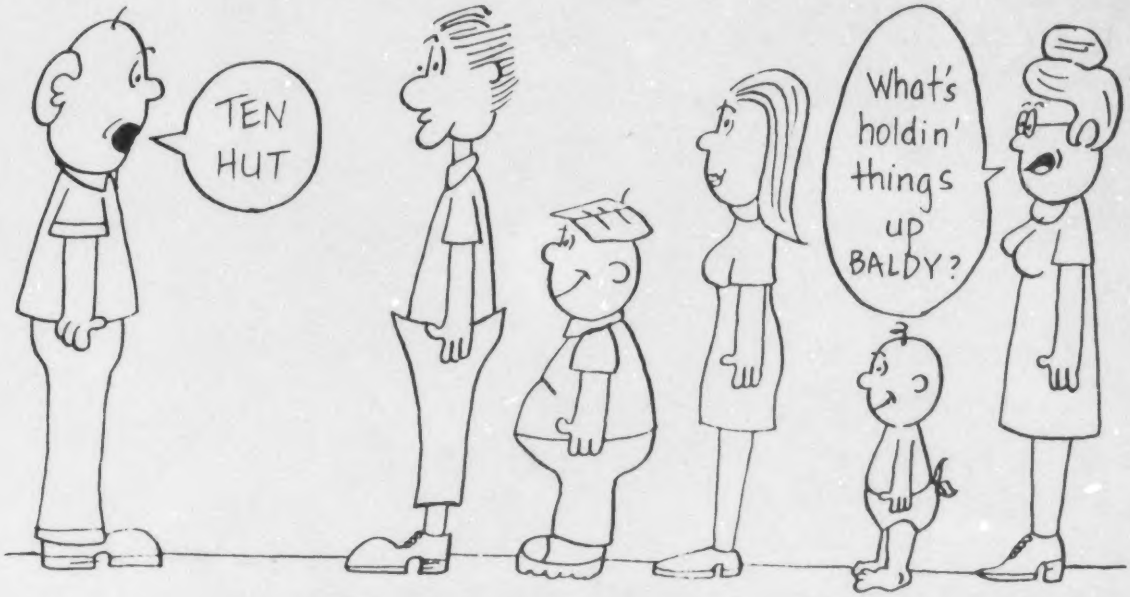
Testing

Here are a few teacher strategies that facilitate individualization as well as independence:

*Use progress charts to keep track of where the child has been and where he or she goes next.



*Use others to assist with children:
- Parents
- Community volunteers
- Peer tutors
- Older students as tutors.



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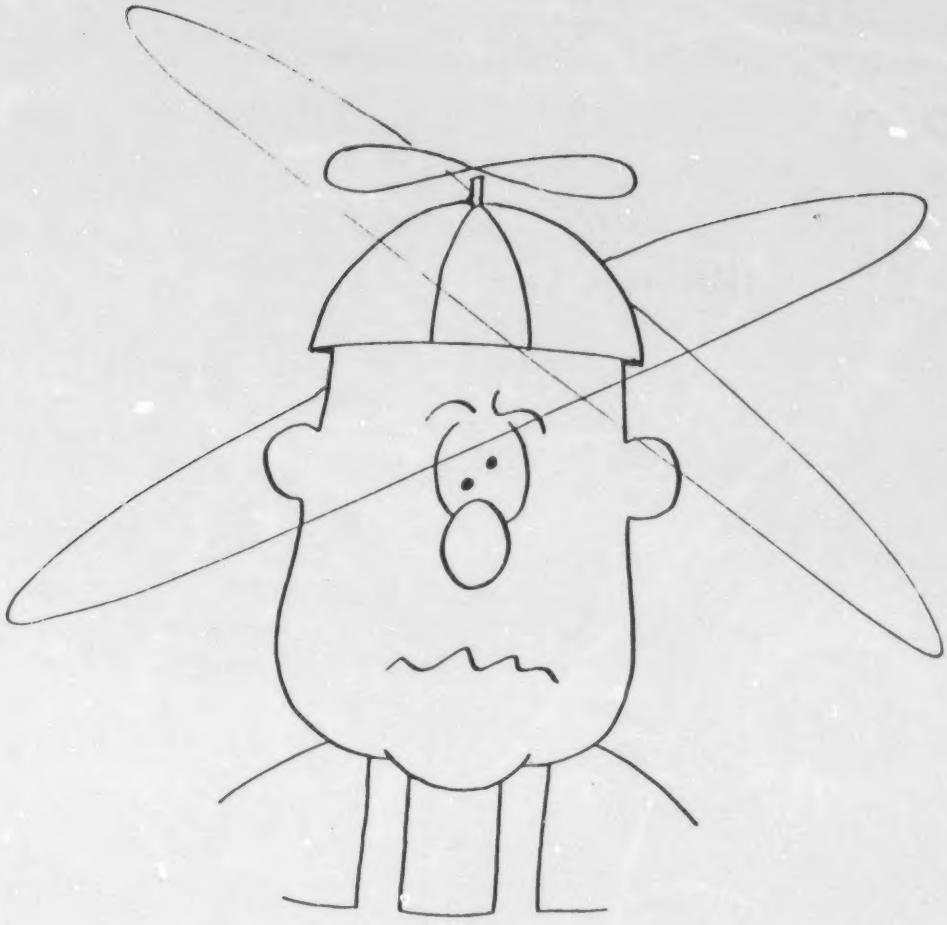

The number of concepts presented in any one period should be limited; otherwise the child can become confused from having to master too much information at one time. It is more advisable to introduce new material only after older material has been mastered.

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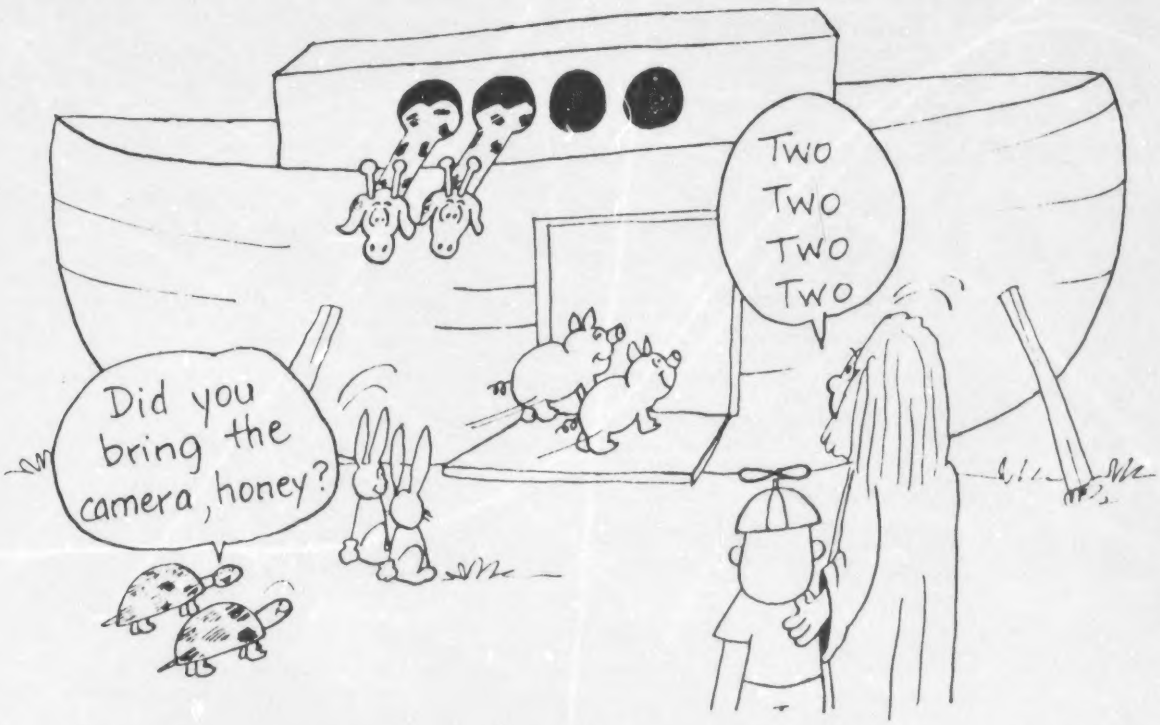
Attending can be facilitated by clear and precise instructions...

...shorter assignments, more interesting materials, fewer distractions, shifting activities to avoid boredom and fatigue, and not overloading or overwhelming the child with too much to do or to remember. Have him or her repeat the instructions back to you to see if they are really understood.

From: Mainstreaming Series
Teaching Resources

Overlearning

Mildly retarded children generally require more repetitions of a concept or an experience in order to retain it. For example, an average child may master the word "was" after ten repetitions in a reading lesson. It may take twenty or thirty repetitions of the word for the mildly retarded child to retain it. Sufficient repetitions of material need to be provided so the child will overlearn the material.



Review of the material over time is also important. When a new concept has been introduced come back to it again and again in different contexts.

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Teaching Resources

Transfer Training

Mildly retarded children have difficulty generalizing skills and concepts to other similar or novel situations. For example, they may learn that the symbol (-) means minus but have trouble understanding that the word "from" means minus as in "ten from fifteen is five."

Help the child generalize from one situation to another by providing numerous examples of how one skill or concept might be applied in other settings.

LEARNING DISABILITIES

CURRICULAR ADAPTATIONS FOR STUDENTS WITH LEARNING DISABILITIES

Below are suggestions for adaptations of classrooms and buildings, equipment, and instructional strategies for students with learning disabilities. This is not an exhaustive list of adaptations. Those presented here are some of the more commonly used and simple to implement. Sources for additional modifications may be found in the bibliography at the end of this paper.

Remember there are 3 basic learning styles. They are:

-Auditory learning - Some students learn best by listening.
-Visual learning - Some students learn best by seeing.
-Kinesthetic learning - Some students learn best by picturing a concept or visualizing.

The auditory learner learns best by hearing the spoken word and then writing what is heard. For example, when an instructor is teaching the uses for different weights of oil the auditory learner will learn best by hearing an oral discussion of the various weights, and then writing down the weights.

The visual learner learns best by seeing the written image and then writing or copying what is seen. For example, when the instructor is teaching the uses of different weights of oil, the visual learner will learn best by seeing a chart which pictures the different weights, and then writing the weights.

The kinesthetic learner learns best by hearing, then visualizing the concept. For example, when the instructor is teaching the uses of various weights of oil, the kinesthetic learner will learn best if the instructor provides examples of using weights that call up visions of the uses of the various oil weights. The student envisions the uses, then writes the weights.

Classroom and Building

Keep the work setting free of unnecessary distractions. This is a boon to the student who has trouble listening, is distracted by excess movements, or has difficulty concentrating on tasks.

Arrange the work station or classroom so that the student has a quiet place to read and write.

Arrange lecture seating so the student has a clear shot of the speaker.

Arrange for extra pre-view and re-view time on audio-visual materials.

Arrange tools and other equipment so the student has an orderly structure to follow: color coding, number and letter coding, and templates are good.

Flexible grouping benefits the learning disabled student. Group alternatives are:

Monads: individual work, student-directed project, cubicle work, individual work stations

Dyads: peer teaching, one-to-one teacher-directed settings

Small group: teacher or student directed

Large group: usually teacher directed

Use a buddy system to make sure safety rules and information are understood.

Arrange for good note-takers to share their notes with students who have difficulty logically sequencing notes. (Carbon copy)

Equipment/Materials/Tools

-tape recorders for reviewing lessons, responding to tests, assisting note-taking

-flow charts

-note-taking systems

-visual aids: pictures, hands on demonstrations, slides, films

-carrels or cubicles

-audio-visual presentations that can be large group, small group, individually used

-Supplementary texts and other written material: high interest, low vocabulary reading material

Equipment/Materials/Tools Continued

-texts that are on the students reading level

-reading aids such as key work lists and labels

-calculators

Instruction

Break objectives into small tasks.

Make short assignments: several short assignments on the same subject better than one complex,long assignment.

Establish structure and routing. Have the student check off completed tasks.

Allow practice, practice, practice on new skills. Provide a variety of situations for the practice skill to become generalized across settings.

Use alternatives to pencil-paper evaluations. For example, have the student demonstrate skills, orally respond to a written test, tape-record responses to a test, construct a project, prepare a slide or video-presentation, draw a cartoon strip explaining a process.

Allow the learning disabled student more time to do reading and writing tasks.

Repeat directions. Ask the learning disabled student to repeat the directions.

Incorporate all 3 modes of learning in teaching. Include visual assists, auditory assists, and kinesthetic assists. In short, talk, show, and allow the students to do.

Listening skills are often a problem for the student with a learning disability. Help the student by using these suggestions:

Supply lists of new words to be learned to students prior to lectures.

Have the student listen for key points by saying "This is a key point."

Call attention to separate points within major concepts by saying "First the ... "Next, we will ... Third, put the ..."

Present concepts in a logical sequence.

Have the students to review or summarize main points at the end of presentations on major concepts.

Use visual charts, pictures, flow-charts with lectures.

Instruction Continued

Reading skills are also a problem. The instructor can assist the student with the following:

Cooperate with a reading specialist to find the students strengths and deficits in reading and strategies.

Most learning disabled students do not read for main idea. Provide read ahead material to the student with key points (main sentences) high lighted with yellow felt pen or underlined with colored pens.

Teach note-taking. Provide prepared notes to get the student started. Do not rely on reading alone as a learning mode. Use audio tapes, demonstration, and verbal explanations to communicate key points.

Distractability is often a problem for learning-disabled students. Engage the student in projects such as the following:

Give the student a task to do such as asking the student to disassemble a machine, or

Ask the student to explain a task into a tape recorder, or

Ask the student to troubleshoot a disabled machine, or

Have the student work and organize tools, or

Have the student plan a major event and organize for the event.

Writing slowly or illegibly is also a problem for the learning disabled student. Frustration for student and instructor and late written assignments are often the result. Try the following:

Be reasonable and understanding about mis-spellings and faulty sentence structure.

Provide sample notes so the student can see good writing form.

Let the student respond orally when necessary. Use a tape-recorder if appropriate.

Keep work samples so the student can see progress.

Encourgae the student to learn to type.

CHECKLISTS OF RESPONSIBILITIES

Below are lists of responsibilities for vocational and special educators who jointly serve students with learning disabilities. These lists are provided to help in planning programs for special needs students. The lists are presented in a"check-off"format.

CHECKLIST OF RESPONSIBILITIES

for
Vocational Educators
who serve
Students with Learning Disabilities

____ Know which skills and sub-skills are basic or key skills for successful entry into your class. Know which skills and sub-skills are basic to successful exit from your class. Help to correctly place the learning disabled student by providing a list of skills to those people making placement decisions. Help determine which skills are absolute pre-requisites and which can be modified or adapted in some way for the student. Help plan and implement strategies to help the student develop the entry level skills, if appropriate.

____ Work with the special educator to reinforce concepts and vocabulary, clarify scheduling and grading; share objectives and instructional techniques, and carry out needed curricular adaptation.

____ Find out about available resources including:

____ Related service people
counselor
reading specialist
math teacher
special educator

____ Community resources
employers
vocational rehabilitation
employment agency

____ Organizations (Ask special education for names and addresses.)

____ Talk with the student to find out what adaptations the student has found to be useful.

____ Learn about the student's learning disability.

CHECKLIST OF RESPONSIBILITIES CONTINUED

____ Learn about the student's abilities and academic skills in the classroom. (i.e., conference with special educator, parents, other teachers)

____ Find out the best method for teaching this student. (i.e., visual, auditory, kinesthetic, or a combination of these methods. Get assistance from specialists in determining this.)

____ Dont' underestimate the student. The student has a learning disability not a mental impairment.

____ Find out options available to help make instruction meaningful to student (i.e., vocabulary presentation, flowcharts, tape-recorded lessons).

____ Review units of instruction and daily lesson plans for adaptional changes that may be needed. Be aware of including visual, auditory, and kinesthetic cues in lesson plan and instructional strategies.

____ Establish rapport with the student and encourage social interaction between the student and peers.

____ Assist in providing instructional strategies and materials for the regular classroom, if appropriate (i.e., vocabulary charts, pictures, tape recording of books, oral reading of tests).

____ Support vocational classroom instruction with tutorial help in resource room. This requires cooperation with student, vocational teacher, and special educator.

____ Provide emotional support for the student in adjusting and coping with the fast pace of the regular classroom situation.

____ Work with other school personnel in ways for the student to develop a positive self-image.

____ Provide reference materials and resources that assist regular educators in working with the learning disabled student. This should include material that explains characteristics of learning disabilities.

____ Find out the entry level skills needed for a student to succeed in specific vocational courses. Assist in determining if the student has the skills for placement in the course.

____ Assist the learning disabled student in sharpening note-taking skills, time management skills, and organizational skills.

____ Help the student to develop memory tricks and other recall strategies to learn vocational sequences or key points.

____ Share assessment information (formal and informal) with the vocational teacher concerning the learning disabled student's learning strengths and needs.

PRACTICE EXERCISES

LEARNING DISABILITIES

Following are descriptions of three students who have learning disabilities. These are exercises for applying some of the modifications described earlier. Worksheets to facilitate this activity are in the appendix of this manuscript. See Form I, Worksheet for Practice Exercise.

Instructions

After reading the recommended adaptations on the previous pages of this section do the following:

1) divide into small groups, preferably two vocational and two special educators per group;
2) read the first case study;
3) use Form I, Worksheet for Practice Exercise to determine:
   a. tne student's deficits and strengths,
   b. recommended adaptations,
   c. where the adaptation will take place, and
   d. who's responsible for making the adaptation

EXERCISES

Learning Disabled: Sam

Sam is a sophomore in a vocational agriculture class. The instructor tells us that Sam doesn't do his reading assignments and can't do written questions that follow the assignments. His thinking appears to be disorganized. His handwriting is poor. He skips words and reverses letters, a "b" replaces a "d". When Sam goes to the shop to do a concrete task, such as greasing parts of a wheatplanter he is attentive and does a thorough job. For those tasks which don't require reading or writing he is fairly competent though he is having difficulty keeping up.

Learning Disabled: Susan

Susan is a freshman in an introductory drafting course. She is extremely unorganized, clumsy, and has great difficulty drawing a line, even with a straight edge. (Susan's father owns a surveying company and hopes to have

Exercises Continued (Susan)

Susan join the company when she graduates.) She has received D's and F's on every project that she has turned in for the drafting instructor. In checking with other teachers we find that Susan's academic progress is good, though not always done very neatly.

Learning Disabled: Leon

Leon is a sophomore in a resource room. His reading level is 3rd grade; however, on an individual standardized I.Q. test he scored in the superior range. Leon is a good-looking, well-behaved boy who is respected by his peers and adults. He has worked very hard in the resource room (since 4th grade) to increase his reading skills but has had little success. (Leon told us that his mother spends a lot of time helping with his homework assignments.) Leon wants to enter the cooking/chef program at Central High but the program requires much reading and is offered at the same hour as his resource room hour.

MASTER
Overhead Transparency
Learning Disability

CURRICULAR MODIFICATION: THE STUDENT WITH A LEARNING DISABILITY

Classroom and Building

- minimum distractions
- seating
- pre-view/review time
- organization and order
- grouping
- buddy-systems
- note-takers

Equipment/Materials/Tools

- tape recorders
- flow charts
- note taker systems
- visual aids: pictures, hands-on projects, demonstrations, slides, films
- carrels/cubicles
- audio-visual presentations
- supplementary tests
- word lists and labels
- calculators

Instruction

- time management
- organized lectures
- objectives and task analysis
- practice for generalization
- alternatives to pencil/paper learning
- repetition

modes of learning/teaching: talk...hear
show...see
do...visualize

listening skills:

- preview key words
- point out key concepts and logical sequences
- use visuals with lectures
- summarize
- ask student to recap major points

reading skills:

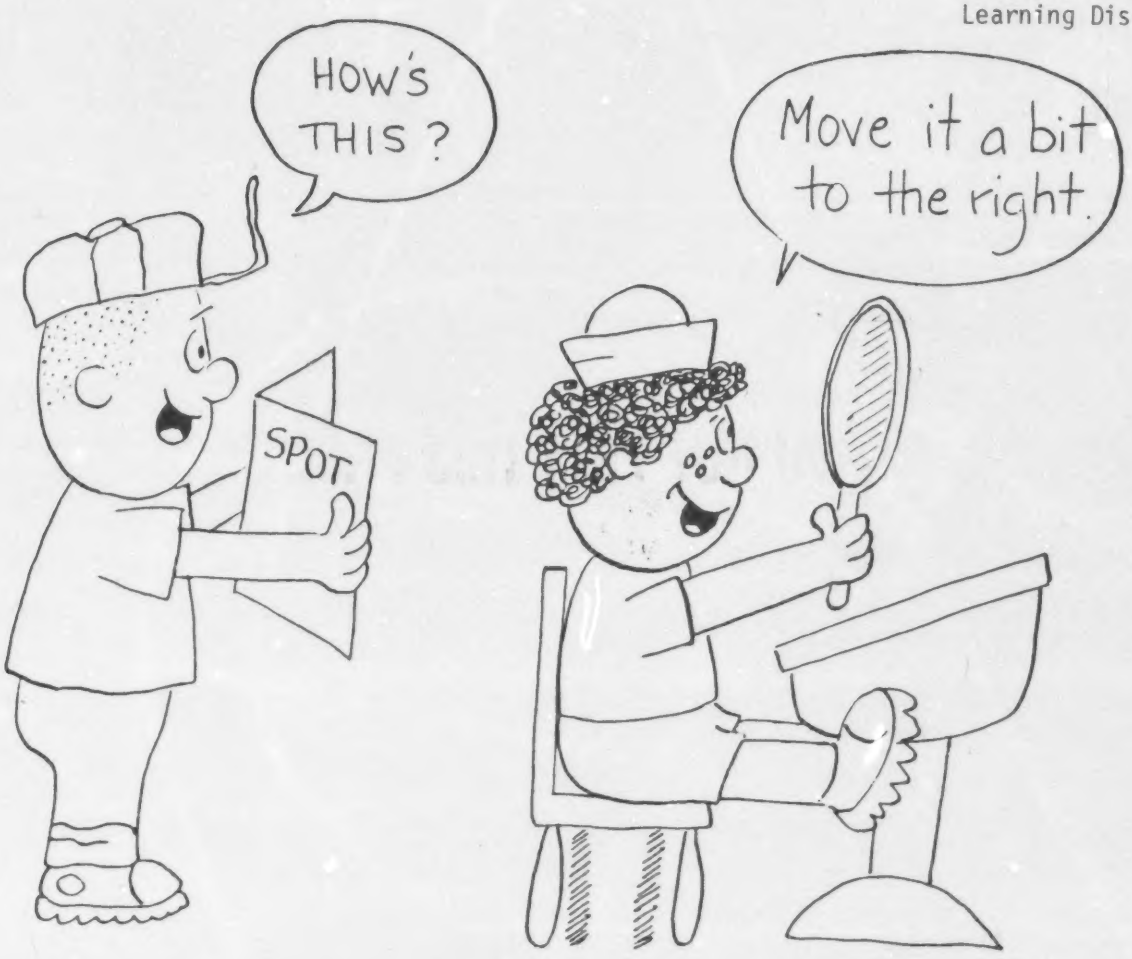
- preview major points
- highlight key points with felt tip pens
- teach note-taking
- on level materials
- audio-tape/demonstrations/verbal explanations

distractable student

- special projects
- call the students name
- assign jobs with logical sequence

writing skills

- functional spelling/legibility
- typewriters
- tape recorders
- progress samples



Another problem area often encountered in the area of reading or writing is reversal problems. The "process" camp referred to in Chapter 3 attributes these reversals to perceptual problems or a lack of integration between the two cerebral hemispheres of the brain. Since this approach offers no solutions, it's more helpful to view the problem as poor form discrimination. Looking at it this way, you *can* plan an effective treatment strategy.

. . . decide what sense modality to use in teaching the child . . .

From: Mainstreaming Series
Teaching Resources

He's doing the best he can. He's retarded you Know.
Crayola's

Remember, each skill has a series of prerequisite skills that must be mastered before you can teach the skill in your objective.

What number is this?
How will you ever learn how to add if you don't even know the numbers?
I thought you would teach me the numbers!

Contract for Exchanging Services/Information

Be sure to include the date services will be rendered, a description of the service to be delivered, signatures of the contracted paper.

Name of sender: _____

Name of receiver: _____

Contracted service/information: _____

_____

_____

_____

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SUGGESTED
AGENDA

CURRICULUM AND CLASSROOM MODIFICATIONS
FOR HANDICAPPED LEARNERS

Introduction:

- Welcome
- Purpose of workshop
- Introduction of participants
- Program models

Curricular and classroom modifications for Handicapped Students:

- General Adaptions
- Hearing Impairments
  - Small group practice
- Visual Impairments
  - Small group practice
- Physical Impairments
  - Small group practice
- Emotional Impairments
  - Small group practice
- Mentally Handicapped
  - Small group practice
- Learning Disabled
  - Small group practice

Communication Exercise:

- "Tell me, what do you mean when ... "
- Develop Contracts

Workshop Wrap up

FORM 1 - WORKSHEET

Case Name _____

Deficits	Strengths	Recommended Modifications	Setting	Who Responsible: Spec. Ed	Voc Ed	other

"END OF DOCUMENT"